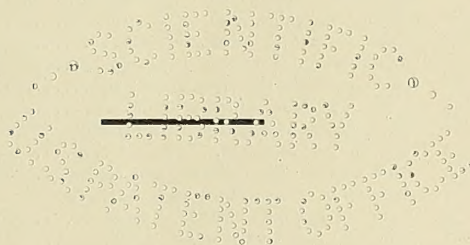


12 2 70101
Junc 41

International Marine Engineering

VOLUME XIII. 44

JANUARY TO DECEMBER, 1908



PUBLISHED BY

MARINE ENGINEERING

INCORPORATED

17 BATTERY PLACE, NEW YORK, U. S. A.

31 CHRISTOPHER STREET, FINSBURY SQUARE, LONDON, E. C.

90074

INDEX.

NOTE.—Illustrated articles are marked with an (*) asterisk.

ARTICLES.	PAGE	PAGE	PAGE
Admiral's barge, motor-propelled.....	*119	Electrically-operated seagoing dredge.....	*57
Amiral Makaroff, armored cruiser.....	*448	Elongation of the Dannebrog. Holm.....	*191
Alcohol versus gasoline as fuel.....	525	Ellen, benzine-electric motor yacht.....	*166
Appliances for manipulating lifeboats on		Engine cranks built up without turning.....	*437
seagoing vessels. Welin	*17, 60	Engine design, marine. Bragg,	
Ancona, emigrant steamer. Taylor.....	*294	*296, 327, 390, 418, 483, 514	
Antonio Lanasa, stranding of.....	*401	Engine, new petroleum	499
Armored cruiser, Amiral Makaroff.....	*448	Engine, reciprocating versus turbine.....	160
Armored cruiser Edgar Quintet, French..	*235	Engines, Austrian patrol boats.....	*435
Armored cruiser Pisa, Italian.....	*39	Europa, new Italian steamship. Attilio.	*416
Armored cruiser Victor Hugo, trials of..	*70	Fastest ships in the world.....	*55
Austrian patrol-boat engines.....	*435	Fighting values of warships. Brady....	*150
Austrian steamer Marina.....	*80	Fire boat Beta, London Fire Brigade....	*397
Auxiliary machinery, horsepower of.....	267	Fire boat San Giorgio for Genoa.....	398
Battle cruiser Indomitable	*325	Fire boats, Chicago.....	*395
Battleship Bellerophon	*42	Floating crane, 140-ton, description of..	*518
Battleship boats, handling of.....	*446	Florida, the fast steamer.....	*145
Battleship construction, speed in. Dewar.	170	Form of high-speed snips, notes on. Long	*258
Battleship North Dakota, launch of....	*520	Francis T. Simmons, large hydraulic	
Battleship Pommern, trials of the German	*75	dredge	*89
Battleship South Carolina, launch of....	*401	French armored cruiser Edgar Quintet..	*235
Battleships, on the size of. Koon.....	404	French cruiser motor boat.....	*133
Bellerophon, battleship	*42	Further experiments upon the longitudi-	
Bermuda races, observations on.....	16, 120	nal distribution of displacement and its	
Beta, float, London fire brigade.....	*397	effect upon resistance. Sadler.....	*530
Blackwell, steamer	158	Gas-engine cycle, a new. Miller.....	*532
Border Chief, motor ferryboat.....	*118	Gasoline engine design, marine. Roberts	*488
Boston Floating Hospital. Monteagle....	*353	Gasoline towboat Brother Jonathan.....	*482
Boilers for U. S. S. Yankee.....	*424	Gasoline versus alcohol as fuel.....	525
Brandane, Clyde-built motor launches....	*118	George W. Fenwick, steam schooner....	*152
Brazilian liner Para	*86	German ore steamer Narvik. Ommeganck	*200
Brazilian liner Verdi	*99	German battleship Pommern, trials of..	*75
Brazos, Mallory Line steamship. Koon.	*507	German Navy	108
British cruiser Gladiator, sinking of....	*306	Gladiator, British cruiser, sinking of...	*306
British turbine battle cruiser Indomitable.	*325	Governor Cobb, tests on.....	17, 21
Brother Jonathan, gasoline towboat.....	*482	Guadeloupe, French liner. Peltier.....	*43
Burmeister & Wain Company. Holm.....	*461	Guardian, cable steamer	*450
Cable steamer Guardian	*450	Guide, United States revenue cutter....	*382
Chicago, Atlantic liner. Peltier.....	*438	Hamburg-American liner	75
Chikuzen, Maru, Japanese liner. Taylor.	*161	Hamburg-American steamer Kronprin-	
Chiyo Maru, Japanese Transpacific liner.	*279	zessin Cecilie. Guenther	*23
City of Cleveland, lake passenger steamer.	*371	Hawk, 25-foot semi-cabin cruiser	*133
Clyde-built steamers for Canadian lakes..	*81	Heating and ventilation of ships. Walker,	
Collision of Dynamo and Quail.....	*443	*7, 67, 101, 149, 219, 241, 290, 336,	
Collision of Mongolian and Huron.....	*159	378, 426, 475	
Combination system of reciprocating en-		Heliopolis, mail turbine steamship.....	*1
gines and steam turbines.....	*341	High-speed motor boats for pleasure....	15, 115
Constructive details	*198, 264, 348	High-speed ships, notes on the form of..	*258
Corcovado, steamer. Brunner	*469	Hirafu Macu, steamer. Taylor.....	*225
Coronilla, steamer, in collision	*402	Horsepower of auxiliary machinery.....	267
Crane, new 150-ton hydraulic	*40	Hurona, collision with Mongolian	*159
Cristina, twin-screw motor boat.....	*497	Hydraulic crane, new, 150-ton.....	*40
Cruiser battleship Rurik, Russian. Taylor.	*492	Hydroplane motor boat Croce-Riccardoni.	*127
Cruiser Gladiator, British, sinking of....	*306	Inclining experiment. Norton	*211
Cubatao, steamship	*175	Indomitable, new turbine battle cruiser..	*325
Cunard steamship Mauretania	*9	Influence of midship section shape upon	
Dannebrog, Danish yacht, elongation.....	*191	the resistance of ships. Taylor.....	*525
Darent, new Thames tugboat.....	*493	Iolanda, twin-screw steam yacht.....	*249
Davits on battleships	*446	Italian armored cruiser Pisa.....	*39
Dimensions of steamships. Alt.....	*358, 384	James Fletcher, patrol steamer.....	*440
Dion Bouton, petrol launch	*422	James Joicey, steamer, in collision.....	*402
Displacement, effect of longitudinal distri-		Japanese turbine steamship Heliopolis..	*1
bution of, upon resistance. Sadler....	13	Kate Connor, steamer on Great Salt Lake.	*181
Dixie II., engines of	*433	Kronprinzessin Cecilie, Hamburg-Ameri-	
Draft, mechanical, marine practice.....	*83, 105	can steamer. Guenther	*23
Dredge director, a novel.....	*168	Launch, 40-foot cruising cabin.....	*131
Dredge, electrically-operated seagoing....	*57	Launch of battleship South Carolina.....	*401
Dredge, large hydraulic	*89	Launch of naval collier Vesta	*433
Dredger, sub-aqueous rock-cutter. Taylor.	*156	Launch of the North Dakota.....	*520
Dry-dock, 2,000-ton railway.....	*222	Launching of the Patuxent	*403
Dynamo, Wilson liner, in collision.....	*443	Lautaro, steam towing launch.....	*266
Echunga, cargo steamer.....	*205	Liberty, twin-screw steam yacht. Taylor.	*247
Edgar Quintet, French armored cruiser..	*235	Lifeboat, motor, Banfield Creek.....	*132
Effect of longitudinal distribution of dis-		Lifeboats, appliances for manipulating on	
placement upon resistance.....	*72	seagoing vessels. Welin	*17
Electrical equipment of the Momus.....	*172	Lightship No. 88, trials of.....	*197
Electrically-equipped shipbuilding berths.	66	Longitudinal distribution of displacement	
		upon resistance, effect of. Sadler....	13
		Lubrication of marine machinery.....	179
		Lubrication of marine engines.....	176
		Lusitania, speed trials and service per-	
		formance of	*303, 350
		Malte, French steamer. Peltier	*207
		Manila lines on board ships. Riley.....	*399
		Maoria, New Zealand liner. Taylor....	*210
		Marina, Austrian steamer.....	*80
		Marine engine design. Bragg,	
		*296, 327, 390, 418, 483	
		Marine engine lubrication.....	176
		Marine engine, overhauling the.....	128
		Marmaris, Turkish coast guard cruiser..	*135
		Mauretania, Cunard steamship	*9
		Mechanical draft, marine practice.....	*83, 105
		Meinan, French cargo boat	*206
		Miantonomoh and class, some early his-	
		tory regarding. Powell	19
		Model screw propeller experiments.....	*308, 333
		Momus, electric equipment of.....	*172
		Mongolian, collision with Hurona	*159
		Monitors, some early history regarding	
		the Miantonomoh and class. Powell.	19
		Motor barge, rear admirals's.....	*119
		Motor boat Cristina	*497
		Motor boat, French cruiser	*133
		Motor-boat race, a remarkable.....	*432
		Motor boat, 25-foot, semi-cabin cruiser..	*133
		Motor boats for naval service. Adams..	15
		Motor boats for pleasure, high-speed....	*115
		Motor cruiser, German. Mentz.....	*124
		Motor launch, Stormy Petrel.....	*131
		Motor launches, Clyde-built	*118
		Motor launches, modern. Gradenwitz...	*164
		Motor lifeboat, Banfield Creek.....	*132
		Motor-propelled vessels, some observa-	
		tions on, the Bermuda races.....	10, *120
		Motor tender, Thornycroft	*129
		Nann Smith, steam lumber schooner....	*152
		Naval Architects and Marine Engineers,	
		fifteenth annual meeting of	13
		Naval College at Greenwich. Waghorn.	*33
		Naval science topics. Liddell.....	*470
		Naval strength of the nations. Koon....	423
		Navy, the German	108
		Narvik, German ore steamer. Ommeganck	*200
		Nordsee, ore-transporting steamer.....	*202
		Norse Prince, steamship.....	*473
		North Dakota, launch of	*520
		North Star, steamer	*451
		Notes on naval-science topics. Liddell..	*470
		Oil-firing system, patent. Fisher.....	*267
		Oil tank steamship Texas.....	*257
		Ore-transporting steamer Nordsee.....	*202
		Ottawa, steamer in collision	*407
		Ouestphalia, German motor cruiser.....	*124
		Overhauling the Mauretania. Williams..	*128
		Para, Brazilian liner	*86
		Paringa, Australian coasting steamer....	*495
		Patuxent, launching of the tug.....	*403
		Petroleum engine, new	499
		Pisa, Italian armored cruiser	*39
		Planet, German surveying ship.....	*263
		Pommern, trials of the German battleship	*75
		Producer gas towboat Wilhelm.....	*130
		Propeller experiments. Froude.....	*308, 333
		Propeller wheels, laying out of.....	*313, 345
		Purification of water, new method for..	173
		Quail, trawler, in collision.....	*443
		Reciprocating engines and steam turbines,	
		combination system of.....	*341
		Repair of broken shaft, quick method..	443
		Repairs to vessels, two instances of un-	
		usual. Ferguson	18
		Resistance, further experiments upon the	
		longitudinal distribution of displace-	
		ment and its effect upon. Sadler....	*530

PAGE	PAGE	PAGE
Resistance of ships, influence of midship section shape upon *525	Steamship Chicago. Peltier *438	Wooden sailing ships. Crowninshield... 18
Revenue cutter Guide, United States.... *382	Steamship companies of the world, the largest. Koon 406	Yarrow shipbuilding yard, new..... *444
Revenue cutters for special purposes.... 16	Steamship Cubatao *175	Ypiranga, steamer. Brunner..... *469
Romanby, trunk-deck cargo steamer..... *206	Steamship engineering economies *538	
Royal Naval College at Greenwich..... *33	Steamship Europa, new Italian. Attilio. *416	EDITORIALS.
Rudder, fractured. Smith *429	Steamship, German surveying *263	Art of making sails 227
Rudders and rudder posts, Clyde..... *478	Steamship Governor Cobb, test on..... 17, *21	Attack on the Florida 316
Rurik, Russian cruiser-battleship..... *492	Steamship Guadeloupe, French. Peltier. *43	Battleship construction in Britain..... 46
Russian cruiser Amiral Makaroff..... *448	Steamship Harvard, service test of..... *522	Brazilian battleships 362
Russian cruiser battleship Rurik. Taylor *492	Steamship Heliopolis, Japanese mail turbine. McPherson *1	Combinations of engines and turbines... 362
Sail making. Wilson *214, 236, 283	Steamship lines, new 91	Construction details 226
Sailing ships, wooden. Crowninshield.. 18	Steamship Maoria, New Zealand liner... *210	Continental passenger traffic 409
San Giorgio, fire boat for Genoa..... 398	Steamship Mauretania, Cunard *9	Development of the modern freighter.. 226
Sarah W. Lawrence, schooner, totally dismasted *288	Steamship Norse Prince *473	Direct steamship service between the two Americas 136
Schooners for the Pacific coast, steam, lumber *152	Steamship Para, Brazilian *86	Discussion of papers read before the Society of Naval Architects and Marine Engineers 542
Scotch shipbuilding in 1907. Taylor.... 108	Steamship Tenyo Maru, Japanese Transpacific liner *279	Era of the large ship 501
Scout cruisers, trial performances of three *387	Steamship Texas *257	Fighting values of warships 453
Seddilbasshir, Turkish coast-guard gunboat *135	Steamship Tochiyo Maru, Japanese Transpacific liner *279	Fire boats 409
Selected marine patents, *52, 97, 143, 188, 232, 276, 323, 368, 413, 458, 505, 547	Steamship Tosno *208	Freighter, development, modern..... 226
Shaft, quick method of repairing..... 443	Steamship Verdi, Brazilian *99	Fuel for internal-combustion engines... 543
Shipbuilding and Engineering Company of Burmeister & Wain. Holm *461	Steering gear, notes on *251	Lake passenger steamers 408
Shearing strength of riveted seams in shell plating. Anderson *465	Steering gear of the Princess Alice.... *74	Large steam yachts 272
Shipbuilding berths, electrically equipped, Palmer's yard 66	Stormy Petrel, launch *131	Lubrication 182
Shipbuilding in 1907, Scotch. Taylor... 108	Stranding of the Antonio Lanasa..... *401	Marine-engine design 316
Shipbuilding in 1907, the world's..... 134	Stream lines around ships' models, experimental investigation of. Taylor... 13, *20	Motor-boat show, New York..... 92
Shipbuilding in the United States, 91, 340, 499, 505	Strength of riveted seams in shell plating *465	Motor boats 136
Shipbuilding yard of Yarrow, new..... *444	Submarines of battleship speed. Chace. 14	Marine transportation, modern 93
Shipbuilding record 158	Superheated steam with marine engines, notes on the use of. Godard *269	Naval architects' convention 46
Shipping of the United Kingdom..... 169	Syria, steamer, in collision *402	Naval disasters 272
Society of Naval Architects and Marine Engineers, fifteenth annual meeting of. 13	Teltow, triple-screw, electrically-driven towboat *165	Propeller wheels 317
Society of Naval Architects and Marine Engineers, sixteenth annual meeting of. 535	Tenyo Maru, Japanese Transpacific liner. *279	Rudders and rudder posts 500
South Carolina, launch of *401	Test of the steamship Harvard..... *522	Scout cruiser trials 409
Stapbolts, use and abuse of. Hickey.... 167	Texas, steamship *257	Shipbuilding 92, 183, 226, 452
Steam dredge, electrically-operated..... *57	Throttle watch in a typhoon. Smith... 494	Shipbuilding details 183
Steam turbines in the German Navy.... 477	Torpedo craft, notes on the world's.... *436	Society of Naval Architects and Marine Engineers 500
Steam yacht Iolanda *249	Tosno, steamship *208	Speed trials of the Lusitania 362
Steam yacht Liberty. Taylor..... *247	Towboat Brother Jonathan, gasoline *482	Steering gear 273
Steam yacht Vanadis. Taylor..... *244	Towboat, new transfer, No. 21..... *175	Theoretical considerations 501
Steam yacht Winchester *112	Towboat Wilhelm, producer gas..... *130	Transportation, modern marine 93
Steamer Ancona, American-Italian emigrant. Taylor *294	Towing launch Lautaro *266	Turbine engine 182
Steamer Blackwell 158	Transportation by water 223	Warships under construction 453
Steamer City of Cleveland, lake passenger *371	Transportation, modern marine..... *29, 63	
Steamer Corcovado. Brunner *469	Transportation of refrigerated meat to Panama. Allwork 17, *76	ENGINEERING SPECIALTIES.
Steamer Echuanga, cargo..... *205	Trial performances of three United States Scout cruisers *387	Blow-off valve. Lunkenheimer Co..... *185
Steamer Florida. Jenkins and Woodruff. *145	Trials of lightship No. 88..... *197	Blow torch, gasoline, "Imp." Frank Mossberg Co. *366
Steamer Guardian, cable *450	Trials of marine contractor 496	Boiler, tubeless. G. R. Steward..... *274
Steamer Hirafu Maru, Japan's first turbine. Taylor *225	Trials of steamship Governor Cobb. Leland and Everett 17, *21	Boilers, corrosion of marine. Hutchins. ix
Steamer James Fletcher, patrol for fishery duties *440	Trials of armored cruiser Victor Hugo... *70	Boilers, "Haystack." Hutson & Sons... *49
Steamer Kate Connor, first on Great Salt Lake *181	Trials of German battleship Pommern... *75	Capstan, steam deck. Dake Engine Co.. *ii
Steamer Kronprinzessin Cecilie, Hamburg-American. Guenther *23	Trials, speed and service performance of the Lusitania *303	Circulator, boiler-water. British Boiler Course and position finder, Capt. Ashe's. Heath & Co., Ltd..... *544
Steamer Malte, French. Peltier *207	Trold, collier, in collision *407	Water Circulator Syndicate *138
Steamer Marina, Austrian *80	Trunk-deck cargo steamer Romanby..... *204	Davit, quadrant. Welin Quadrant Davit Co. *138
Steamer Meinan, French cargo *206	Tugboat Darent *493	Delaware Marine Supply Mfg. Co..... *iv
Steamer Narvik, German ore..... *200	Turbine mail steamship Heliopolis, Japanese *1	Die stock, matchless. Oster Mfg. Co.... *545
Steamer Nordsee, ore transporting..... *202	Turbines in the German Navy..... 477	Drainage of steam whistles. Combination Metallic Packing Co. *229
Steamer North Star *451	Turbines, practical experience with..... *301	Drill, close-quarter pneumatic. Independent Pneumatic Tool Co. *319
Steamer Paringa, Australian coasting. Taylor 495	Turkish coast-guard boats..... *135	Electric generating plant, unique. Buffalo Mechanical and Electrical Laboratory *xii
Steamer Romanby, trunk-deck cargo. Taylor *204	United States battleship South Carolina, launch of *401	Electric thermostat. Geissinger Regulator Co. *454
Steamer Venezia, Italian emigrant..... *209	United States revenue cutter Guide.... *382	Engine, marine. Ferro Machine & Foundry Co. *49
Steamer Ypiranga. Brunner *469	Vanadis, turbine yacht. Taylor..... *244	Engine, steam-yacht. T. A. Savery & Co. *318
Steamers for Brazil, new German-built.. *469	Venezia, Italian emigrant steamer..... *209	Engine, two-cycle marine. Termaat & Monahan *viii
Steamers for Canadian lakes, Clyde-built. *81	Verdi, new Brazilian liner..... *99	Engines, small steam yacht. Sisson & Co. *94
Steamship Brazos, Mallory Line. Koon. *507	Vessel tonnage movement in principal ports of the world 6	Engines, two-cycle gasoline. Kowalsky Engine Co. *xi
Steamship Chikuzen Maru. Japanese liner. Taylor *161	Vessels, weights of. Liddell *430	Exhausters, ball-bearing. Massachusetts Fan Co. *228
	Vestal, naval collier *433	Expansion joint for ammonia. Crane Co. *95
	Vibration in passenger ships 163	Feed-water heater, "Reilly" multi-coil. Griscom-Spencer Co. *411
	Victor Hugo, trials of armored cruiser.. *70	Furnace, bridge, Sturrock Patent Bridge & Engineering Co. *228
	Warship design, further tactical consideration involved in. Niblack..... 14	
	Warships, relative values of. Brady, Jr. *150	
	Weights of vessels. Liddell *430	
	Winchester, steam yacht, steel *112	

	PAGE		PAGE		PAGE
Gage, automatic water. Penberthy In-		Improved winch	149	Velocity imparted to water by injectors..	96
jector Co.	*ii	Institution of Naval Architects	225	Working pressure of a boiler.....	142
Gage cock, improved, "Excelsior," Lun-		International Congress of Navigation....	224		
kenheimer Co.	*ix	International Yacht Race.....	364	TECHNICAL PUBLICATIONS.	
Gear, engaging and disengaging, "Mills."		Japanese merchant marine	22	Amerique et Japon. Spartali.....	456
A. P. Lundin	*viii	Kaiser Wilhelm II.	443	Annual Report of the Japanese Mercan-	
Generating sets for marine service, Curtis		La Rance, French cargo steamer.....	188	tile Marine Bureau for 1906-1907.....	187
turbine. General Electric Co.	*48	Largest ships in the world.....	312	Autogenous Welding of Metals. Bernier.	367
Generator set, multi-polar. Holmes & Co.	*366	Marine turbine	223	Beeson's Marine Directory.....	411
Griscom-Spencer Co.	*vi	Mauretania record	320	Berechnung und Konstruktion der Schiffs-	
High-speed engines, economy tests of.		Merchant marine, Chilean	123	maschinen und Kessel. Bauer.....	230
Treat.	*502	Merchant marine, Japan	22	Board of Trade Arithmetic for First-	
Indicator. Star Brass Mfg. Co.....	*139	Merchant tonnage of the world.....	181	Class Engineers. Youngsen	411
Inspector's outfit, American. American		Michigan, launch of	308	British Engineering Standards, Coded	
Steam Gauge & Valve Mfg. Co.....	*544	Monomack, tug	312	Lists. Adamson	367
Lamps, "Tantalum," Siemens Bros. Dyna-		New York, Albany Day Line, loss.....	504	Bureau Veritas, 1907-1908.....	50
mo Works	*365	North Dakota	474	Consular Requirements for Exporters and	
Lubrication of marine engines. Keystone		Notice	196, 544	Shippers. Nowery	411
Lubricating Co.	*364	Obituary	75, 323, 368, 458	Definitions in Navigation and Nautical	
Lighting set, ship. W. Sisson & Co....	*48	Omission	51	Astronomy. Groves-Showell	411
Lighting set, small. Thornycroft & Co..	*184	Port of New York, steamers arriving at..	12	Deutscher Schiffbau, 1908. Flamm.....	456
Lighting set, turbine. Sturtevant Co....	*140	Personal.....	129, 232, 323, 458, 503	Engine-Room Chemistry. Gill.....	96
Magnalium. Morris R. Machol.....	*366	Progress of naval vessels,		Engineering Index Annual	231
Meter, automatic sight-feeding. Boilerine		48, 94, 138, 184, 228, 274, 318, 364, 410,		Equipment Buyers' Finance. Winder...	321
Mfg. Co.	*318	454, 502, 544		Ex-Meridian Altitude, Azimuth and Star-	
Milling file, "Vixen." National File &		Recent figures	206	Finding Tables. Rust	504
Tool Co.	*502	Report of the Bureau of Navigation....	281	Fighting Ships. Jane	187, 546
Motor boats, new high-speed. Electric		Revision of U. S. marine laws relating to		Gas Engine. Hutton	186
Launch Co.	*v	safety of life at sea	517	Handbook for Care and Operation of Na-	
Motor, six-cylinder. Brooke & Co.....	*184	Safety in warship construction.....	524	val Machinery. Dinger	95, 230
Motor, two-cycle. Mianus Motor Works.	*95	Steaming radius of scout cruisers.....	454	Hendricks' Commercial Register of U. S..	457
Packing, high-pressure spiral piston.		Tonnage of vessels in Hamburg harbor...	40	Harbor Engineering. Cunningham	231
New York Belting & Packing Co.....	*275	Transatlantic steamship records.....	312	Hints to Engineers for the Board of	
Packing, metallic. Garlock Packing Co..	*229	Turbine, large marine	*223	Trade Examinations. Martin	141
Pipe-bending machine. Barry & Co.....	*318	Two huge battleships	451	History of the United States Navy.....	186
Pipe-bending machine, portable. Under-		U. S. naval colliers.....	418	Hydraulics. Dunkerley	51
wood & Co.	*274			Internal Combustion Engines. Carpenter	
Pipe machine. Crane Co.	*320, i			and Diederichs	457
Piston, Economy Piston Co.....	*xi	QUERIES AND ANSWERS.		Introduction to the Study of Electrical	
Planer clamps. Williams & Co.....	*xii	Beam of lightship No. 88.....	368	Engineering. Norris	140
Planer, gigantic. Niles-Bement-Pond Co.	*ii	Calculation for the discharge of water		Lake Shipyard Methods of Steel Ship	
Pressure blower, rotary. Baker Blower		through an orifice	321	Construction. Curr	187
Engineering Co.	*410	Cause of knocking in a compound engine.	97	Les Flottes de Combat en 1908.....	141
Propeller, H. G. Trout. King Iron		Cavitation	142	List of Merchant Vessels of U. S.....	96
Works	*319	Coal consumption of the Lusitania and		Lloyd's Register of American Yachts....	367
Pump, turbine-driven centrifugal hot well	*139	Mauretania	368	Log of the Blue Dragon. Lynam	367
Pumps, Odesse Pump Co.....	*365	Coal used per year by merchant ships...	142	Machine Design. Spooner	321
Pumping set, small. Brooke & Co....	*229	Comparison of Clyde and Scotch boilers.	368	Marine Boiler Management and Construc-	
Quadrant davit, "Welin." Lundin.....	*i	Cylinder diameters for triple-expansion		tion. Stromeyer	230
Revolution counter. Schuchardt &		engine	457	Marine Engineering. Tompkins	456
Schutte	*456	Data on trials of steamship Governor		Massen-Distillation von Wasser. Bothas.	185
Riveter, portable. Albree	*185	Cobb	546	Mechanical Engineering of Power Plants.	545
Screwdriver. Billings & Spencer Co..	*503	Diameter of a propeller	*322	Mechanical World Electrical Pocketbook.	96
Shear, universal angle and plate. Bart-		Effect of feed-water filter from alum....	413	Mechanical World Pocket Diary.....	50
Iett & Co.	*viii	Estimation of weights of marine boilers..	504	Nautical Charts. Putnam	503
Speed counter, small. American Steam		Formula for horsepower of single, triple		Nautische Bibliothek	50
Gauge & Valve Mfg. Co.....	*318	and quadruple expansion engines.....	232	Naval Pocketbook for 1908. Clowes..	186, 367
Speed indicator, motor boat. Nicholson		Formula for relative strength of curved		Navy Year Book. Pulsifer	188
Ship Log Co.	*xi	and straight deck beam	231	Neuere Schiffsmaschinen. Rosenthal...	276
Speed variator. R-W Speed Variator Co.	*vii	Freezing of whistle pipe.....	232	Night Signal's of the World's Shipping..	320
Staybolt chuck, reversible. Cleveland		Government requirements for equipment		Patents as a Factor in Manufacturing..	546
Pneumatic Tool Co.....	*410	of motor boats	547	Practical Shipbuilding. Holms	276
Turbine, "Curtis," generating sets, hori-		Heat value of wood and grain alcohol...	96	Present-Day Shipbuilding. Walton	95
zontal. General Electric Co.....	*48	Horsepower and weight of auxiliaries in		Profit Making in Shop and Factory Man-	
Turbine pump. Lea Equipment Co.....	*503	various types of ships	*232	agement. Carpenter	276
Valve, steam-pressure regulating, "Col-		Horsepower to drive motor boat.....	412	Proper Distribution of Expense Burden..	457
lin." Ohio Brass Co.....	*275	How to obtain the pitch of a propeller..	*413	Record of American and Foreign Shipping	96
Vanadium steel. Vanadium Steel Co....	*366	Lap and lead	*142	Refrigeration. Anderson	230
Washer, "Fastnut," Fastnut, Ltd.....	*275	Lining up a steeple compound tugboat en-		Sea Terms and Phrases. Hewlett	95
Winch, electric. Chambers, Scott & Co..	*455	gine	51	Signal Manual for the Use of the Mer-	
Wrench, "Agrippa." Williams & Co....	*94	Method of finding the area of a propeller		cantile Marine. Rugg	411
Wrench, B. & S., 15-degree angle motor		blade	322	Simple Problems in Marine Engineering	
boat. Billings & Spencer Co.....	*545	Pitch of motor-boat propeller.....	412	Design (including Turbines). Sothern.	141
Wrench, pipe. Billings & Spencer Co..	*456	Producer gas for two-cycle engines.....	188	Slide Rule. Pickworth	411
		Relation of eccentric to position of valve.	188	Steam and Entropy Tables. Peabody....	141
		Relation of speed and power of ships....	51	Steam Power Plant Engineering.....	503
		Relation of theoretical and actual capacity		Steam Turbine. Neilsen	231
		of feed pump	321	Steam Turbines. Thomas	140
		Remedy for "grunting" in a four-cylinder,		Structural Engineering. Brightmore...	320
		triple-expansion engine	143	Temperature-Entropy Diagram. Berry...	545
		Rule for pressure on safety valve.....	368	Transactions of the Institution of Naval	
		Shearing stresses in rivets of shell plating	232	Architects, 1907	50
		Size of feed-pump plunger	321	Use of the National Forests. Pinchot...	51
		Speed of a four-cycle marine motor....	142	Valve Setting. Collins	546
		Trial displacement of U. S. battleships..	412	Verbal Notes and Sketches for Marine	
		Turbine system of Cunard liners Maure-		Engineers. Sothern	504
		tania and Lusitania	*97	Warships: A Text Book on the Construc-	
		Valve gear for small steam yacht engine.	*322	tion, Protection, etc., of Warships.	
				Attwood	320

PARAGRAPHS.

A curious coincidence	414
American warship construction	361
Bow wave, Montana	487
Chester, American scout cruiser.....	181
Chilian merchant marine	123
Europa, Hamburg-American liner.....	223
Fillets on shafting	*422
Fire boats of New York city.....	398
Fire float Beta	496
Great Lakes Engineering Works.....	111
Head-on collision in Kaiser Wilhelm	
canal	448